

ABSTRACT OF THE DISCLOSURE

5 A motor-generator system with a current control feedback loop for generating electrical energy in stationary, portable, and automotive applications. The generator includes a housing defining an interior space and including a first portion and a second portion; an electric motor assembly positioned within the first portion of the 10 housing, and operationally coupled to a shaft member for selectively rotating the shaft member; an electric generator assembly positioned within the second portion of the housing and operationally coupled to the shaft member for converting mechanical rotation into electrical energy, the electric generator 15 assembly including a current output for supplying electrical current; and a control assembly operationally coupled between the electric generator assembly and the electric motor assembly the control assembly providing a control current to the electric motor assembly for controlling a speed of rotation induced into the shaft 20 member by the electric motor assembly.